

**Appln No. 10/779,480**  
**Amdt date March 30, 2006**  
**Reply to Office action of October 31, 2005**

**REMARKS**

Reconsideration of this application is requested.

Independent claims 1, 3, 4 and 6 have been amended. Claims 8 and 9 have been withdrawn. New dependent claims 10 to 15 have been added. In view of this amendment, claims 1 to 15 are now in the application.

The specification has been amended to correct informalities.

The claims have been amended to overcome the Section 112 rejections.

This invention provides a multi-layer laminate or wall film that can be applied to an interior wall to provide a decorative finish. As emphasized in the application, pigments used in interior wall paints commonly contain mono azo constituents that can migrate from the painted surface through a wall film and into the color layer of the film, causing it to discolor. In response to this problem, the invention provides a wall film that contains a discoloration-prevention barrier that blocks or captures migrating pigment materials that otherwise cause discoloration.

The wall film of this invention is a useful alternative to conventional wallpaper. The wall film can be applied to the wall quickly and easily compared to conventional wallpaper. The decorative component of the wall film is supported by a removable release liner, and the finished wall film is adhered to the wall by a pressure sensitive adhesive. The decorative portion of the wall film is extremely thin and flexible, which adapts to irregular surfaces and corners; it also allows the wall film to be applied quickly and even overlapped along the seams. Because the wall film is extremely thin, the overlapping seams are virtually imperceptible to the observer.

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Use of such an extremely thin and flexible wall film can be adversely affected by the migrating discoloration-causing pigments which can bleed through the pressure sensitive adhesive layer and into the color layer of such a thin film. The invention includes a barrier layer which is extremely thin so as to maintain overall thin and flexible properties of the wall film, while being effective at inhibiting discoloration of the color layer.

Anticipation Rejections of Claims 1 to 2

Previous claims 1 to 2 were rejected under Section 102(b) as anticipated by Spain et al. '712. Claims 1 to 2 now in the application distinguish over the paint film laminate 140 shown in FIG. 14 and described at column 38 of the '712 patent. The FIG. 14 paint film is a flexible self-adhesive laminate for use in automotive paint replacement. The paint film laminate has a removable masking 141, a clear coat 45 bonded to a color coat 46, a flexible backing 142 adhered to the color coat 46, and a pressure sensitive adhesive on the flexible backing. The clear coat and color coat layers are exterior automotive paint layers as described in the application. They form a non-self-supporting exterior automotive paint coat 44 (column 8, lines 32-34). The clear coat (column 9, lines 24-25) and the color coat (column 13, lines 56-57) each have a dry film thickness from 0.5-1.5 mils. They are supported by the flexible backing 142 which is otherwise not described, except that it also supports the pressure sensitive adhesive layer. The flexible backing 142 (being referred to as a "backing") implies a structurally-supportive function for supporting the otherwise non-self-supporting exterior paint coat and the pressure sensitive adhesive. Therefore, the backing 142, as disclosed in Spain et al. '712, suggests at best structural a self-supporting film. The Fig. 14 embodiment of Spain et al. does not anticipate nor does it suggest the claimed thin, flexible laminate having an overall dry film thickness of 1.6 mils or less that includes a much thinner barrier layer (between the adhesive layer and the color layer) with a dry film thickness from 0.05 to 0.20 mil, which is entirely different from the structurally supportive, self-supporting "backing" in Spain et al. '712.

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The claims also distinguish over the flexible backing in FIG. 14 of Spain et al. '712 because it does not disclose or suggest a barrier layer containing the claimed barrier material that can inhibit transmission of discoloring-causing agents from a painted surface through the pressure sensitive adhesive and into the color layer. The backing disclosed in FIG. 14 of Spain et al. is simply disclosed as a flexible but supportive film. There is no teaching or suggestion of its functioning as a barrier to inhibit transmission of discoloration-causing agents from the exterior automotive paint to the exterior paint coat on the replacement film.

This claimed function of the barrier material contained in the barrier layer of the present invention is considered part of the invention taken as a whole, which must be considered on the issue of patentability, contrary to the Examiner's statements in the Office action.

In the Office action, the invention's claimed function of preventing or inhibiting transmission of discoloration-causing agents was given little patentable weight -- the discoloration barrier component was characterized as an element which was merely able to perform a function, which was not considered a positive structural limitation.

The Examiner cites In re Hutchinson, 69 USPQ 138 (CCPA 1946) as support for functional claim language such as "adapted for" not comprising a claim limitation; but another precedent holds that "adapted for" is a claim limitation. See In re Laud and Rogers, 151 USPQ 621 (CCPA 1966). And "adapted to" clauses were later sanctioned in In re Venezia, 189 USPQ 149 (CCPA 1976). Reliance on the Hutchinson case is misplaced when applied to the present claims. The "adapted for" language in Hutchinson was contained in a preamble of the claim at-issue. In the present case, the function of the barrier layer comprises part of a structural limitation, in a combination of related structural elements, which is permissible under the court decisions.

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The claimed barrier layer of the present invention is defined by structural limitations and the function of inhibiting discoloration under use conditions. These are permissible claim limitations.

As to the structural elements of the claims (e.g. claim 1), the position of the barrier layer in the multi-layer laminate enables it to function as a barrier against discoloration-causing pigments migrating through the laminate--from a painted wall surface, through the adhesive, and into the color layer. The claimed barrier layer also has a dry film thickness which is a small fraction of the overall thickness of the decorative portion of the otherwise thin and flexible laminate; and yet it is effective as a discoloration-prevention barrier, defined as a polymeric film containing a barrier material having the function of preventing noticeable color change at room temperature conditions.

This functional claim language is not objectionable. In re Barr, 170 USPQ 33 (CCPA 1971) held that the limitation used to define a radical on a chemical compound as 'incapable of forming a dye with said oxidizing developing agent,' although functional, was perfectly acceptable because it set definite boundaries on the patent protection sought. As to the barrier material of the present application, and its recited function, the specification provides numerous examples of barrier films which provide the claimed resistance to discoloration. The specification also teaches color shift measurements that can be made, including testing by accelerated aging techniques simulating the colorshift effects over a useful life of the product, all according to standard color shift measurement specifications familiar to those skilled in the art.

The claims of the present case are similar to In re Halleck, 164 USPQ 647 (CCPA 1970), where the claims had been rejected by the lower court as too broad and functional. The claims used as functional language "an effective amount...for growth stimulation," where the specific amounts, proportions and substances were not contained in the claim. The court held that these

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functional claims were not objectionable because those skilled in the art will be able to determine from the written disclosure and examples what an effective amount for growth stimulation is.

The Court of Appeals for the Federal Circuit also has accepted as permissible, functional language that describes the function of a claimed product or apparatus, not as it is, but as it is used in practice. In re R.A.C.C. Industries Inc. v. Stun-Tech, Inc., 49 USPQ 2d 1793 (CAFC 1998) upheld as enforceable in infringement litigation claim language that referred to the product's function of concealability (not noticeable, observable, or discernable as a prisoner control apparatus). It was held that the specification at-issue clarified this language, and that the functional language in the apparatus claim did not convert the claim into an otherwise improper method of use or hybrid claim. This decision supports the claimed discoloration barrier's function under use conditions as acceptable claim terminology.

In a similar decision, In re Geneva Pharmaceuticals, Inc. v. GlaxoSmithKlein, PLC, 68 USPQ 2d. 1865 (CAFC 2003) upheld a claim calling for a "synergistically effective amount of clavulanic acid," referring to it as being acceptable claim terminology, providing that a person of ordinary skill could determine the specific amounts from the specification without undue experimentation.

As mentioned, the color-prevention properties of the barrier layer are clearly defined in the specification. Accordingly, the rejection of the claims as being improperly functional without the required structural limitations is improper under the case law, and therefore should be withdrawn.

The claims also were rejected as improper product-by-process claims--containing process limitations in a product claim. The Examiner held that such claim language as "adhering the laminate to a wall at room temperature," and "peeling away the liner from the dry paint layer" are process limitations in a product claim. The Applicant disagrees with this analysis of the claims.

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The Examiner supports this rejection, contending that patentability of an article depends on the article itself, not the method used to produce it. But, the claim language objected to does not involve a process for making the laminate. The claim language relates to the pressure sensitive adhesive's function of adhering the laminate to a wall at room temperature and then the release liner being releasable from the laminate to expose the dry paint layer. The pressure sensitive adhesive is positioned to adhere the entire laminate to a wall and maintain its adherence properties (attached to the wall) while the release liner (owing to a lower release force) is able to be removed from the adhered decorative portion of the laminate. These are structural limitations, not claim limitations having to do with a process for making the product as recited in the rejection; therefore, is requested that the "product-by-process" reasons for rejection be withdrawn.

The Section 102 rejection appears to be based on separate grounds for rejection, citing conclusions drawn from other areas of the Spain et al. '712 disclosure, independent from its FIG. 14 disclosure. Here the Examiner holds that Spain teaches that the clear coat can function as a barrier, by providing a sufficient film thickness to prevent color coat pigment particles from migrating from the color coat through the clear coat and penetrating the surface of the clear coat. The Examiner reasons that the '712 barrier is made of PVDF-acrylic resin, which includes a non-pigment and an acrylic resinous composition, the same as that described in the present application. The Examiner holds that this disclosure is equivalent to the claim language relating to a barrier material that inhibits migration of discoloration-causing pigments.

This reasoning for the rejection is not applicable to the claimed laminate of the present invention. Initially it should be pointed out that the claimed dry film thickness of the barrier layer distinguishes clearly over the "barrier layer" function of the Spain et al. '712 clear coat layer referred to in the rejection.

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Secondly, the clear coat layer of Spain et al. '712 does not function as a barrier in a multi-layer laminate having a color coat layer on one side of the barrier and a pressure adhesive on the other side, as called for in the claims.

Further, the barrier properties referred to in the rejection, in the Spain '712 reference at column 15, line 30 to column 16, line 4, are entirely different. Here the specification refers to the outer clear coat having a thickness sufficient to prevent pigments from the underlying color coat from penetrating the exterior surface during thermoforming and causing deglossing. This function of the clear coat as a barrier is entirely different from that claimed in the present application. The barrier properties in Spain et al. '712 are produced only during high temperature thermoforming of an exterior automotive body panel, which also includes the 10 to 40 mil thick backing sheet of the Spain et al. invention. This function of the clear coat during high temperature forming does not offer any suggestions as to a discoloration barrier in the wall film of this invention which, according to the structural limitations of the claim, is capable of adhering to the painted wall surface at room temperature and preventing discoloration from migrating pigments under such entirely different use conditions.

Accordingly, these additional reasons for rejecting claims 1 and 2 over Spain et al. '712 should be withdrawn.

#### Obviousness Rejections of Claims 3 and 4 to 5

Claims 3 and 4 to 5 have been rejected as obvious under Section 103(a) and/or Section 103(e) over Spain et al. '712. In addition, claims 4 to 5 were rejected as obvious over Spain et al. '712 in view of Spain et al. '031.

The same reasons for rejection of claims 1 to 2 have been applied to independent claims 3 and 4: (1) FIG. 14 of Spain; (2) the clear coat of Spain having the same barrier function as the

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claimed barrier; (3) the product-by-process rejection; and (4) the functional language of the claims not being considered for patentability.

All of these reasons have been addressed in the previous responses having to do with the Section 102 rejections of claims 1 to 2. Claims 3 and 4 to 5 also contain limitations similar to amended claim 1 which have been shown to distinguish over the cited prior art for the reasons set forth previously.

Accordingly, for the same reasons, it is submitted that amended claims 3 and 4 to 5 patentably distinguish over Spain et al. taken alone, or in combination with Spain et al. '031.

Original claim 4 was rejected separately over Spain et al. '712 on the ground that while Spain et al. teaches a dry film thickness of between 0.5 to 1.5 mils, Spain et al. does not expressly state that the thickness is not more than about 10% of the total thickness of the decorative laminate (exclusive of the release liner). However, the Examiner contends that Spain et al. teaches that film thickness can be varied to effect the appearance properties of the paint coat, which is an optimizable feature.

As mentioned previously, claim 4 recites the barrier layer thickness and its related function of providing discoloration prevention. The reasons for the rejections have to do with varying the thickness of the paint coat to adjust appearance properties of the paint coat. Such teachings are entirely unrelated to any suggestions having to do with a separate barrier coat that prevents discoloration of the paint coat layer, or a thickness that is sufficient to produce the barrier function in the claimed thin, flexible wall film. For these reasons, the subject matter of claim 4 would not have been obvious over Spain et al. '712.

As to the rejection of claims 4 to 5 over Spain et al. '712 in view of the secondary reference, Spain et al. '031, the Examiner holds that the teaching of a fine particulate additive



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such as aluminum silicate dispersed in an acrylic resinous paint coat, in order to produce color in the dry paint finish laminates of Spain '031, somehow would have made it obvious to modify the multilayer film of the present invention to include a similar additive in the barrier layer.

With respect to the obviousness rejection over Spain et al. '031, there is no prima facie case of obviousness since (1) all the claim elements of the claimed combination are not disclosed in the cited references, (2) sufficient motivation to make the necessary selection, modification or combination of elements is not present, and (3) based on the lack of (1) and (2) the invention would not have been obvious.

Initially referring to the disclosure in Spain et al. '031, the FIG. 6 embodiment comprises an outer clear coat, print coats, and a color coat 80. The color coat provides opacity for appearance properties and also contains metal oxide pigments to improve resistance to UV degradation of the extruded vinyl substrate. Such UV degradation causes delamination of the decorative film from the vinyl substrate.

The pigmented color layer of Spain '031 does not disclose or suggest a discoloration prevention barrier having the claimed thickness in a wall film in which the barrier layer contains a barrier material that produces the discoloration prevention function in the claimed wall film. Accordingly, all elements of the claimed invention are not present in the combination of Spain et al. '712 in view of Spain et al. '031.

Moreover, the Spain '031 disclosure lacks sufficient motivation and does not fairly suggest using a discoloration prevention barrier layer in a thin flexible wall film to inhibit transmission of discoloration causing pigments from a painted surface into a color layer of the wall film at room temperature conditions. The color layer of Spain '031 relates to an entirely different problem. Its use of metallic particles in the color layer of the siding panel is for improved adhesion between the color layer and the extruded vinyl substrate under outdoor

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weather conditions. This is entirely different from the claimed discoloration prevention barrier used in an entirely different product. Accordingly, considering the invention taken as whole, the claimed invention in its structure and function would not have been obvious from the cited references.

#### Obviousness Rejection of Claim 6

Claim 6 stands rejected under Section 103(a) as being obvious over Spain et al. '712 in view of Spain et al. '031 and further in view of Eppel '317.

The elements of the claimed multi-layer laminate of claim 6 are similar to the claimed elements of the multi-layer laminate called for in claim 1, and for the reasons given above with respect to claim 1, it is submitted that claim 6 contains the same patentable claim limitations and accordingly is allowable independently of the reasons submitted for relying upon the secondary references Spain '031 and Eppel '317 in the obviousness rejection.

#### Double-Patenting Rejection

Claims 1 to 7 were rejected for obviousness type double-patenting as being unpatentable over claims 1 to 58 of U.S. Patent No. 6,649,003 to Spain et al. and claims 1 to 66 of Spain et al. '712. In the double-patenting rejection, the Examiner contended that the claims in the present application were not patentably distinct because the patented claims are processes for making the same structural elements in the same order, and the capability of inhibiting or capturing pigments in the discoloration barrier was given little patentable weight. In light of the responses to the rejections as emphasized previously, it is submitted that the claims now in the application distinctly claim the discoloration prevention barrier with structural and functional elements that are unrelated to the process claims of the '003 and '712 patents. Therefore, in view of this

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response, the double-patenting rejection has been overcome, and withdrawal of the double-patenting rejection is requested.

Information Disclosure Statement

In view of examinations and currently pending related applications, Applicant submits with this response an information disclosure statement in order to cite references not previously made of record in this application.

In view of the foregoing remarks, it is believed that all claims in the application are now allowable.

Respectfully submitted,  
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